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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,737	12/08/2003	Dan Kalas	81206-243306	3972

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EXAMINER
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TSOY, ELENA

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/730,737

Applicant(s)

KALAS ET AL.

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 19-37 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

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***Response to Amendment***

Amendment filed on November 29, 2004 has been entered. New claims 34-37 have been added. Claims 19-37 are pending in the application.

***Specification***

1. Objection to the disclosure because of the informalities has been withdrawn due to amendment.

***Claim Objections***

2. Claim 19 is objected to because of the following informalities: "said the outer housing" should be changed to -- "said outer housing" or "said outer housing".

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Rejection of claims 19-22, 25, 26, 31-33 under 35 U.S.C. 103(a) as being unpatentable over Petersen et al (20030104178) in view of Kotler (US 6,452,200) has been withdrawn due to amendment.
5. Claims 19-22, 25, 26, 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al (20030104178) in view of Kain et al (US 20040137465).

Petersen et al are applied here for the same reasons as set forth in Paragraph No. 4 of the Office Action mailed on August 23, 2004. Petersen et al fail to teach that the coated substrate is

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placed into an outer housing by opening the outer housing having a fastener and placing the substrate within said outer housing, said outer housing having a radiotranslucent top to allow radiation to pass through the outer housing (Claim 19) and handles (Claim 35).

Kain et al teach that a substrate coated with array labeled with radioactive isotope (a radiation source) (See P192) can be placed into a holder (outer housing) comprising a metal frame that surrounds each edge of the substrate (border having radiopaque bottom surface), and a lid of a translucent material to allow for detection of signals from the array, the lid including hinges and handles (See P116) which facilitates insertion and removal of the array from the holder (See P74). Although Kain et al does not expressly show that the metal frame is radiopaque, obviously it is because detection of radioactive signals from the array is allowed only through translucent lid.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed a radiation source of Petersen et al into an outer housing having a hinged lid of a translucent material by opening the lid using handles and placing the substrate within said outer housing with the expectation of providing the desired shielding and detection of signals from the radiation source, as taught by Kain et al.

As to claims 34, 36, Kain et al further teach that the frame may be attached to either a translucent base plate or to a *metal* (radiopaque) base plate (See P75, P98).

As to claim 37, Petersen et al further teach that the substrate can be made from any suitable material including metals, e.g. copper foils (claimed substrate having radiopaque back surface) (See column 2, P23, last line).

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6. Claims 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al (20030104178) in view of Kain et al (US 20040137465), further in view of Ohno et al (US 3,604,394).

Petersen et al in view of Kain et al are applied here for the same reasons as above.

Petersen et al in view of Kain et al fail to teach that the substrate is fed using a roller, which is only in contact with back surface of the substrate.

Ohno et al teach that a web substrate to be coated on one side can be moved using a roller, which is only in contact with back surface of the substrate (See column 2, lines 3-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have moved a substrate in Petersen et al in view of Kain et al using a roller, which is only in contact with back surface of the substrate since Ohno et al teach that a web substrate to be coated on one side can be moved using a roller, which is only in contact with back surface of the substrate.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al (20030104178) in view of Kain et al (US 20040137465), further in view of Tomizawa et al (US 5,985,425).

Petersen et al in view of Kain et al are applied here for the same reasons as above.

Petersen et al in view of Kain et al fail to teach that the conventional ink comprises a binding agent.

Tomizawa et al teach that conventional ink comprises a binding agent (See column 3, lines 47-50).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used conventional ink in Petersen et al in view of Kain et al comprising a binding agent with the expectation of providing the desired printed deposit, since Tomizawa et al teach that conventional ink comprises a binding agent.

8. Claims 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al (20030104178) in view of Kain et al (US 20040137465), further in view of Carden, Jr et al (US 6,086,942).

Petersen et al in view of Kain et al are applied here for the same reasons as above. Petersen et al in view of Kain et al fail to teach that the method further includes: dissolving a compound containing a radioisotope precursor in a solvent and irradiating said radioisotope precursor to transform it into a radioisotope (Claim 29); adsorbing a radioisotope to a particulate and dispersing said particulate in said deposited solution (Claim 30).

As to claim 29, Carden, Jr et al teach that a "precursor material" which can be activated by subsequent bombardment with appropriate nuclear particles can be used instead of radioactive material (See column 3, lines 26-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a "precursor material" which can be activated by subsequent bombardment with appropriate nuclear particles in a radioactive solution of Petersen et al in view of Kain et al instead of radioactive material with the expectation of providing the desired radioactive deposit, since Carden, Jr et al teach that a "precursor material" which can be activated by subsequent bombardment with appropriate nuclear particles can be used instead of radioactive material.

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As to claim 30, Carden, Jr et al also teach that a radioactive fluid suitable for use in a fluid-jet printhead may comprise radioisotope dissolved in a curable or dryable solution, or it may be adsorbed onto a dispersible particulate carrier or powder that is dispersed in a curable solution (See column 3, lines 22-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a radioactive fluid for use in a fluid-jet print head in Petersen et al in view of Kain et al with the expectation of providing the desired radioactive deposit since Carden, Jr et al also teach that a radioactive fluid suitable for use in a fluid-jet print head may comprise radioisotope dissolved in a curable or dryable solution, or it may be adsorbed onto a dispersible particulate carrier or powder that is dispersed in a curable solution.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 19-37 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ELENA TSOY  
PRIMARY EXAMINER  
-ETsoy

Elena Tsoy  
Examiner  
Art Unit 1762

December 27, 2004